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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,795	03/26/2004	Masaki Mizuochi	520.43873X00	7148
20457	7590	07/12/2006		EXAMINER
ANTONELLI, TERRY, STOUT & KRAUS, LLP 1300 NORTH SEVENTEENTH STREET SUITE 1800 ARLINGTON, VA 22209-3873			ARANCIBIA, MAUREEN GRAMAGLIA	
			ART UNIT	PAPER NUMBER
			1763	

DATE MAILED: 07/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/809,795	MIZUCHI ET AL.
Examiner	Art Unit	
Maureen G. Arancibia	1763	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 19 April 2006.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 2,7 and 8 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1,3-6,9 and 10 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 26 March 2004 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>03/04</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____. |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Species C (Embodiment 3, Figure 5) in the reply filed on 19 April 2006 is acknowledged. The traversal is on the ground(s) that independent Claims 1, 2, and 4 are generic or sub-generic, and that therefore the requirement for election of species should be withdrawn. This is not found persuasive. The Examiner agrees that at least Claims 1 and 4, as currently recited, may be generic to more than one species. Claim 2 is not generic, but rather only readable on non-elected Species A (Embodiment 1, Figure 3), due to the recitation of a flow path of a heat-exchanging medium being provided through the inside of a member attached to the non-moving fixed side guide member. Regardless, the presence of generic or sub-generic claims does not obviate the fact that several independent or distinct species are claimed, and is not grounds for the withdrawal of the requirement for election of species.

2. The requirement is still deemed proper and is therefore made **FINAL**.

3. The Examiner notes that in the requirement for election, the description of Species A, which requires that a flow path of a heat-exchanging medium be provided through the inside of a member attached to the non-moving fixed side guide member (Specification, Page 10, Line 25 - Page 11, Line 4), and the description of Species B, which requires that a flow path of a heat-exchanging medium be provided through the inside of the non-moving fixed side guide member of the two constituent members of a guide (Specification, Page 11, Lines 20-25), were inadvertently reversed, although the

correct citations were made to the Specification and the Drawings. The Examiner regrets any confusion that may have resulted from this reversal.

4. Applicant has identified Claims 1-6, 9, and 10 as readable on elected Species C. However, as discussed above, Claim 2 is only readable on Species A. Therefore, Claims 1, 3-6, 9, and 10 will be examined on the merits. The Examiner also notes that the alternative recitation in Claims 1 and 4 that the flow path of a heat-exchanging medium is provided through the inside of a member attached to the non-moving fixed side guide member is drawn to Species A, and will not be examined on the merits.

5. Claims 2, 7, and 8 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 19 April 2006.

Drawings

6. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters **12** and **13** have both been used to designate the base in Figure 1. Reference character **12** should designate the floor. (Specification, Page 9, Lines 6-7) Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the

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changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

7. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: **265, 266, 267, 268** in Figures 5, 6, 7, and 9; **29** and **30** in Figure 8. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

8. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: **24** on Page 11, Line 6; **254** on Page 15, Line 8; **248** on Page 18, Line 10. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version

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of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

9. The drawings are objected to because reference character **82** in Figure 2 does not designate any part in Figure 2. It should designate the mirror. (Specification, Page 10, Line 2) The drawings are further objected to because it appears that reference characters **36** and **37** are erroneously used in Figure 10. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and

informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

10. The abstract of the disclosure is objected to because it has more than one paragraph. Correction is required. See MPEP § 608.01(b).

11. The disclosure is objected to because of the following informalities:

It appears that on Lines 1-2 and Lines 14-15 on Page 16, the phrase "gas exhaust groove **28**" should be corrected to "gas exhaust groove **30**".

The description of Figure 8 (Page 15, Line 25 - Page 18, Line 1), is extremely unclear, possibly due to errors in translation. Namely, the references to both "fixed side guide member 161" and "stage base 161" and to both "moving side guide member 191" and "moving table 191" may be erroneous. Applicant has used reference character 161 to specifically designate the stage base (Page 14, Line 8), and reference character 191 to specifically designate the moving table (Page 14, Line 14). Therefore, the use of these reference characters for the fixed side guide member and the moving side guide member, respectively, in the description of Figure 8 must be incorrect.

Appropriate correction and/or clarification are required.

Claim Objections

12. **Claims 1, 3, 4-6, 9, and 10 are objected to because of the following informalities:** It appears that Line 4 of Claim 1 should be amended to recite "a moving side guide member and a fixed side guide member". It appears that Line 5 of Claim 1 should be amended to recite "the two side guide members". It appears that Line 4 of

Claim 4 should be amended to recite “**a first guide and a second guide**”. The remaining claims are objected to due to their dependence on independent Claims 1 or 4.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

13. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

14. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

15. **Claims 1 and 3 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.**

Specifically, the amendment to independent Claim 1 to recite “the flow path of the heat-exchanging medium being provided through the inside of **at least one of** the non-moving fixed side guide member of the two constituent members of the guide and a member attached to the non-moving fixed side guide member” does not appear to be supported by the original disclosure. The original disclosure supports an embodiment in which the flow path of the heat-exchanging medium is provided through the inside of the non-moving fixed side guide member of the two constituent members of the guide

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(Figure 4) and an embodiment in which the flow path of the heat-exchanging medium being provided through the inside of a member attached to the non-moving fixed side guide member (Figure 3). However, the original disclosure does not appear to support an embodiment in which a flow path of the heat-exchanging medium is provided through the inside of **both** the non-moving fixed side guide member of the two constituent members of the guide **and** a member attached to the non-moving fixed side guide member, a scenario now encompassed by Claim 1 as amended. It is unclear if the original disclosure adequately supports an embodiment in which the flow path of the heat-exchanging medium is provided through the inside of a member attached to the non-moving fixed side guide member **and** the guide is equipped with a means for sliding the moving side guide member and fixed side guide member with the aid of gas lubrication, a scenario now encompassed by dependent Claim 3. (This is made further unclear by the indefinite recitation of a similar scenario in Claim 4; i.e. it is unclear if such a scenario is adequately supported by the recitation in Claim 4.) Appropriate correction and/or clarification are required.

16. Claims 1, 3, 4-6, 9, and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the sample-setting portion" in Lines 6-8 and 9-10 and the limitation "the heat-exchanging control" in Line 10. There is insufficient antecedent basis for these limitations in the claim. For the purposes of the following examination on the merits, the recitation of "the sample-setting portion" has been

interpreted as referring to the part of the table on which the sample is set, and the recitation of "the heat-exchanging control" has been interpreted as referring to the heat-exchanging medium.

Claim 3 recites the limitation "wherein the guide is equipped with a *means for sliding* the moving side guide member and fixed side guide member *with the aid of gas lubrication.*" It is unclear whether this recitation was intended to invoke 35 U.S.C. 112, sixth paragraph. For the purposes of the following examination on the merits, the recitation of "with the aid of gas lubrication" is considered to provide sufficient structure for achieving the specified function, and 35 U.S.C. 112, sixth paragraph is not considered to have been invoked. However, clarification is requested. See MPEP 2181.

Claim 4 recites the limitation "the sample-setting portion" in Lines 6-8 and 9-10 and the limitation "the heat-exchanging control" in Line 10. There is insufficient antecedent basis for these limitations in the claim. For the purposes of the following examination on the merits, the recitation of "the sample-setting portion" has been interpreted as referring to the part of the table on which the sample is set, and the recitation of "the heat-exchanging control" has been interpreted as referring to the heat-exchanging medium.

Claim 4 also recites the limitation "the guide" in Line 8. There is insufficient antecedent basis for this limitation in the claim. Since Claim 4 recites "the first guide and the second guide" in Line 4, it cannot be determined to which of these guides the recitation of "the guide" is intended to refer. For the purposes of the following

examination on the merits, the recitation of "the guide" has been broadly interpreted to refer to either of the first or second guides.

Claim 4 also recites the limitation "a gas-lubrication type third guide that guides the table in **every direction** in the plane" in Lines 11-12. This recitation is unclear, since broadly interpreted, "every direction" would include truly every direction, such as diagonal travel. However, if this were the case, it is unclear what kind of "guide" could allow such action. There is no support in the original disclosure for ex. diagonal motion of the table. For the purposes of the following examination on the merits, this recitation has been interpreted in accordance with the Specification as referring to the X-axis direction and the Y-axis direction.

Claim 4 also recites the limitation "the flow path of the heat-exchanging medium being provided through the inside of the non-moving fixed side guide member of the two constituent members of the third guide or through the inside of a member attached to the fixed side guide member" in Lines 13-16. This recitation is extremely unclear. The recitations of "the non-moving fixed side guide member" and "the two constituent members of the third guide" lack antecedent basis in the claim. For the purposes of the following examination on the merits, these recitations have been interpreted as requiring that the "gas-lubrication type third guide" comprises two guide members, one of which is fixed.

The term "almost everywhere" in claim 5 is a relative term which renders the claim indefinite. The term "almost everywhere" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one

of ordinary skill in the art would not be reasonably apprised of the scope of the invention. This recitation has been broadly interpreted for the purposes of the following examination on the merits as requiring that that flow path of the heat-exchanging medium pass under at least part of the table regardless of the position of the table.

Appropriate correction and/or clarification are required. The remaining claims are rejected due to their dependence on independent claims 1 or 4.

Claim Rejections - 35 USC § 102

17. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

18. Claims 1, 3, 4, and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,959,732 to Hara et al. ('732 to Hara et al.).

In regards to Claims 1, 3, and 4, '732 to Hara et al. teaches a sample-setting moving stage (Figure 2), comprising: a table 11S on which a sample W is set; a first guide 11X and a second guide 11Y that guide the movement of the table in the X-axis direction and Y-axis direction in a plane, respectively (Column 10, Line 65 - Column 11, Line 2); a temperature sensor installed near the sample-setting portion of the table, as broadly recited in the claim (*a temperature sensor for measuring the fluid temperature may be provided near the inlet of each of the stationary members 16A to 19A; the table is capable of being positioned near any of these temperature sensors; Figure 2; Column 12, Lines 54-57*); and a gas-lubrication type third guide that guides the table in the X-

axis and Y-axis directions in the plane, as broadly recited in the claim (i.e. the table is being guided by the third guide whether the table is in the process of being moved in the X-axis direction or the Y-axis direction), the third guide consisting of a moving side guide member 16B and a fixed side guide member 16A, equipped with a means (gas bearing members 20A, 20B, 20C; Column 12, Line 62 - Column 13, Line 9) for sliding the moving side guide member and fixed side guide member with the aid of gas lubrication, and guiding the movement of the table by means of the relative movement of the two side guide members (the table is guided, i.e. positioned, by the two side guide members even when moving in the Y-axis direction; Column 11, Lines 19-54), as broadly recited in the claims. A flow path of a heat-exchanging medium is provided through the inside of the fixed side guide member 16A of the third guide (Figure 2; Column 11, Lines 45-54), and a temperature adjustment means 6A adjusts the temperature the heat-exchanging medium (Column 11, Lines 55-56)

The recitation in Claims 1 and 4 that the sample is set under vacuum or reduced pressure atmosphere is considered as a recitation of intended use of the claimed sample-setting moving stage. The sample-setting moving stage taught by '732 to Hara et al. would be structurally capable of being installed in a vacuum chamber, in order to perform the intended use of having the sample under vacuum or reduced pressure atmosphere. Likewise, the heat-exchanging medium would be capable of performing the intended use of cooling or adjusting the temperature of the sample-setting portion of the table via the guide, due to thermal conduction between the components of the moving stage. It has been held that a claim containing a "recitation with respect to the

manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham*, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987)

In regards to Claim 6, '732 to Hara et al. teaches a second temperature sensor 45A, installed in the heat transfer path from the temperature adjustment means 6A to the sample-setting table, and multiple lines of flow path of the heat-exchanging medium 42X, 42Y (Figure 2), as broadly recited in the claim; wherein the temperature adjustment means adjusts the temperature of the medium, which flows in the multiple lines of flow path independently from each other (i.e. there are separate flow paths; Figure 2), as broadly recited in the claim, based on the information from the second temperature sensor and the first temperature sensor installed near the sample, as broadly recited in the claim. (Column 12, Lines 32-61; Column 13, Lines 14-59)

Claim Rejections - 35 USC § 103

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over '732 to Hara et al. in view of U.S. Patent 5,220,171 to Hara et al. ('171 to Hara et al.).

The teachings of '732 to Hara et al. were discussed above.

'732 to Hara et al. does not expressly teach that the flow path of the heat-exchanging medium is so widely extended that the flow path is located just under the table anywhere in the plane of the table movement that the table is positioned.

'171 to Hara et al. teaches that the flow path of a heat-exchanging medium (conduits 41-47) should be extended just under the moving sample-setting table 1 and mounted to the bottom of table 1. (Figure 1; Column 6, Line 59 - Column 7, Line 42)

It would have been obvious to one of ordinary skill in the art to modify the apparatus taught by '732 to Hara et al. to have the flow path of the heat-exchanging medium be extended just under the moving sample-setting table, as broadly recited in the claim and taught by '171 to Hara et al., and mounted to the bottom of the table. The motivation for making such a modification, as taught by '171 to Hara et al. (Column 7, Lines 38-42), would have been to maintain the surface of the sample-setting table at a desired temperature.

In the combination of '732 to Hara et al. and '171 to Hara et al., the flow path of the heat-exchanging medium is formed just under the sample-setting table, as broadly recited in the claim, and mounted to the table, and would therefore, by virtue of moving together with the table, be located under the table anywhere in the plane of the table movement that the table is positioned.

21. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over '732 to Hara et al. in view of Applicant's Admitted Prior Art (AAPA).

The teachings of '732 to Hara et al. were discussed above.

In regards to Claim 9, '732 to Hara et al. does not expressly teach that the sample-setting moving stage is part of a manufacturing apparatus for circuit pattern, on which a circuit pattern is formed on a sample by irradiation with charged particle ray, X-ray, or EUV.

AAPA teaches a manufacturing apparatus for circuit pattern, on which a circuit pattern is formed on a sample by irradiation with charged particle ray, X-ray, or EUV, equipped with a sample-setting moving table. (Specification, Page 1, Line 22 - Page 2, Line 24)

It would have been obvious to one of ordinary skill in the art to modify the apparatus taught by '732 to Hara et al. to install the sample-setting moving stage in a manufacturing apparatus for circuit pattern, on which a circuit pattern is formed on a sample by irradiation with charged particle ray, X-ray, or EUV, as taught by AAPA. The motivation for doing so, as taught by AAPA (Specification, Page 1, Line 22 - Page 2, Line 24), would have been to use the sample-setting moving stage to perform the necessary accurate positioning of the sample in such an apparatus.

In regards to Claim 10, '732 to Hara et al. does not expressly teach that the sample-setting moving stage is part of an inspection apparatus for circuit pattern, on which charged particle ray is radiated onto a sample with circuit pattern so as to inspect the circuit pattern.

AAPA teaches an inspection apparatus for circuit pattern, on which charged particle ray is radiated onto a sample with circuit pattern so as to inspect the circuit

pattern, equipped with a sample-setting moving table. (Specification, Page 1, Line 22 - Page 2, Line 24)

It would have been obvious to one of ordinary skill in the art to modify the apparatus taught by '732 to Hara et al. to install the sample-setting moving stage in an inspection apparatus for circuit pattern, on which charged particle ray is radiated onto a sample with circuit pattern so as to inspect the circuit pattern, as taught by AAPA. The motivation for doing so, as taught by AAPA (Specification, Page 1, Line 22 - Page 2, Line 24), would have been to use the sample-setting moving stage to perform the necessary accurate positioning of the sample in such an apparatus.

Conclusion

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maureen G. Arancibia whose telephone number is (571) 272-1219. The examiner can normally be reached on core hours of 10-5, Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on (571) 272-1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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